

B1
A3
end

server in accordance with interprocess calls provided by said second message control in accordance with said text message.

16. The method of claim 9 wherein said interface control server is in a first domain and said client is in a second domain.

17. An apparatus for controlling an environment maintenance device, comprising:

an interface control server adapted for communication with said environment maintenance device;

a messaging control at said interface control server for receiving and interpreting text messages from a client; and

a connection between said interface control server and said environment maintenance device, said connection adapted for communicating a command to said environment maintenance device in accordance with a text message from said client.

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Please cancel claims 4, 12, and 19.

REMARKS

Claims 1-20 are pending in the present application. Applicant has amended claims 1, 9, and 17 to indicate that text messages are exchanged between messaging controls that are adapted to interpret text messages and to communicate with interface control servers in accordance with interprocess calls. Applicant has canceled claims 4, 12, and 19.

Objection to the Specification

The Examiner has objected to the specification due to several informalities. Applicant has amended the specification as suggested by the Examiner. Applicant respectfully submits the specification as amended overcomes the Examiner's objection.

Objection to the Claims

The Examiner has objected to claim 16 due to an informality. Applicant has amended claim 16 as suggested by the Examiner. Applicant respectfully submits claim 16 as amended overcomes the Examiner's objection.

Claim Rejections under 35 U.S.C. § 102

The Examiner has rejected 9-13 and 15-19 under 35 U.S.C. § 102(e) as being anticipated by Joao (U.S. Pat. 5,917,405). It is the Examiner's position that Joao teaches each and every element of Applicant's invention including message controls. The Examiner believes that claim 12 of the Joao patent teaches a message control. Claim 12 indicates that various devices (i.e., control devices) which may be located remotely from one another communicate in accordance with various signals that may be used to control a vehicle. The vehicle responds directly to the signals initiated by the control devices. Joao does not disclose the content or structure of signals or commands that are transmitted between the various control devices. In Joao, it is presumed that all vehicles or systems can respond to the signals and commands that are transmitted. As a result, Joao does not disclose messaging controls to process signals or commands because each control device is adapted to handle any incoming signal or command. More importantly, Joao does not address the problem of

incompatibilities that may result when manufacturers develop vehicles or systems that respond to different sets of signals and commands.

Applicant has amended claims 1, 9, and 17 to clarify the role of messaging (or message) controls in the present invention. In view of Applicant's amended claims, Applicant respectfully traverses the rejections. Messaging controls in accordance with the present invention accept text messages and interpret them so that commands or signals compatible with the maintenance devices to be controlled may be generated by the interface control servers. Messaging controls facilitate the exchange of commands between clients and interface control servers, but do not directly control the devices with which they are associated. Interprocess calls/events techniques may be used by the messaging controls to issue directives to the interface controls servers that interact with the maintenance devices. The messaging controls therefore serve as intermediaries between clients and interface control servers that ultimately control the maintenance devices. Because the messaging controls interpret the text messages, maintenance devices that operate in accordance with varied and incompatible protocols may still be controlled through the present invention using a common set of messages. The query/response syntax and semantics of the text messages exchanged by the message controls are the same regardless of the type of signaling and commands issued by the interface control servers as required by the various maintenance devices. New maintenance devices may replace old devices without requiring changes to the message syntax and semantics exchanged between messaging controls. Applicant respectfully submits that Joao does not teach messaging controls as disclosed by Applicant and therefore, the Joao reference cannot support the present rejections.

With respect to claims 12 and 19, it is the Examiner's position Joao teaches use of text messages for controlling maintenance devices. Although Joao states that the World Wide Web (a text based system) may be used in connection with controlling remote systems, Applicant respectfully submits that Joao does not teach text messages for use by messaging controls to interact with interface controls servers. As indicated previously, Joao does not disclose any particular content or structure for signals. As a result, there is no indication in Joao that text messages as taught by Applicant are exchanged between the components of Joao. Applicant respectfully submits that the exchange of text messages between messaging controls further distinguishes the present invention over the Joao reference.

Claims Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 1-5 and 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Joao. It is the Examiner's position Joao teaches Applicant's invention except for a plurality of servers. The Examiner also has rejected claims 6, 14, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Joao in view of Davies (U.S. 6,108,701). It is the Examiner's position that with respect to claims 6, 14, and 20, Joao teaches does not explicitly teach messages exchanged between messaging controls in accordance with TCP/IP protocol. The Examiner relies on Davies to teach messaging in accordance with TCP/IP protocol.

Applicant has amended claims 1, 9, and 17 to clarify the role of messaging (or message) controls in the present invention. Messaging controls in accordance with the present invention accept text messages and interpret them so that commands or signals compatible with the maintenance devices to be controlled may be generated by the

interface control servers. In view of Applicant's claim amendments and remarks with respect to the Examiner's § 102(e) claim rejections, Applicant respectfully traverses the rejections and submits that the present invention is not obvious in view of the Joao reference. Applicant further respectfully submits that the Joao reference alone, or in combination with the Davies reference, cannot support the present rejections.

With respect to claim 4, Applicant respectfully submits, as argued above, that Joao does not teach the exchange of text messages between messaging controls.

Attached is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Applicant's independent claims 1, 9, and 17 indicate that message controls in accordance with the present invention facilitate the exchange of messages between clients and the interface controls servers that control various maintenance devices. In view of the foregoing Amendments and Remarks, Applicant respectfully submits that the present application is now in condition for allowance and respectfully requests such action.

Respectfully submitted,

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By: Carol G. Stovsky
Carol G. Stovsky
Reg. No. 42,171
Attorney for Applicants
Standley & Gilcrest LLP
495 Metro Place South, Suite 210
Dublin, Ohio 43017
Tel.: 614-792-5555
Fax: 614-792-5536

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph at page 6, line 22 has been replaced with the following paragraph.

Referring to Fig. 1, a preferred embodiment of the present invention for a golf course application is shown. It is understood that the golf course application is merely exemplary. As shown in Fig. 1, various types of devices used for maintenance of a golf course may be supported using the present invention. An irrigation system 74, a pumpstation 68, and a weather station 46 may be controlled using the system and method of the present invention. As further shown in Fig. 1, each device or set of devices that comprise the system has an interface control server that controls the individual device or set of devices. Irrigation system 74 has an irrigation interface control server 72, pumpstation 68 has a station interface control server 66, and weather station 44-46 has a weather station interface control server 46-44. Other device/service servers 24 may be controlled using the present invention. As shown in Fig. 1, the connections between the servers and stations or systems are physical, serial port connections. For example, the connection 84 between the irrigation system 74 and irrigation interface control server 72 may be one or more serial port connections. The station interface control server 66 and pumpstation 68 as well as weather station interface control server 44 and weather station 46 also connect through a serial port.

IN THE CLAIMS:

Claims 1, 9, 16, and 17 have been amended as shown. Claims 4, 12, and 19 have been cancelled.

1. A system for controlling environment maintenance equipment comprising:

a plurality of interface control servers for controlling environment maintenance devices, said interface control servers adapted to respond to interprocess calls;

a client for communicating with said interface control servers; and

a messaging control at said client and at each of said plurality of interface control servers for exchanging text messages between said client and each of said plurality of interface control servers in accordance with said messaging controls, wherein said messaging controls at said interface control servers are adapted to interpret said text messages and to communicate with said interface control servers in accordance with interprocess calls.

9. A method for controlling environment maintenance equipment comprising the steps of:

connecting an interface control server to an environment maintenance device;

installing a first message control at said interface control server, said message control adapted to interpret text messages and to communicate with said interface control server in accordance with interprocess calls;

installing a second message control at a client;

entering a text message at said client;

communicating said text message from said client to said interface control server in accordance with said first message control and said second message control; and

controlling said environment maintenance device at said interface control server in accordance with interprocess calls provided by said second message control in accordance with said text message.

16. The method of claim 8-9 wherein said interface control server is in a first domain and said client is in a second domain.
17. An apparatus for controlling an environment maintenance device, comprising:
 - an interface control server adapted for communication with said environment maintenance device;
 - a messaging control at said interface control server for receiving and interpreting text messages from a client; and
 - a connection between said interface control server and said environment maintenance device, said connection adapted for communicating a command to said environment maintenance device in accordance with a text message from said client.